

Responsiveness Summary for Comments on SW-405.1 “Requirements for Qualified Construction and Demolition Receiving and Processing Facilities”

Comments Received from:

- Republic Services – letter (9/24/13)
- Waste Management – letter (9/24/13)
- Lautenbach Recycling – letter (9/24/13)
- Construction & Demolition Recycling Association – letter (9/23/13)
- King County Health Department – E-mail (9/23/13)

A. Enforcement of Disposal Bans

1) *How will be disposal bans be enforced with intermodal containers?*

Enforcement at construction or demolition projects with intermodal containers will be the same as all other sites. The City will review of waste diversion reports and conduct occasional field visits. Intermodal containers, destined for disposal, should not contain banned materials. This Director’s Rule (SW-405.1) focusses on qualified recycling facilities, not disposal facilities. There will also be a new Building Code and Residential Building Code requirement that all demolition and partial demolition projects submit a salvage assessment and for all projects over 750 square feet to submit a waste diversion plan before being issued a Construction or Demolition permit.

2) *SPU should consider stipulating that facilities that do not maintain compliance with solid waste permits or flow control ordinances can be subject to penalties, including loss of status as a qualified facility until such time as the facility can demonstrate compliance.*

The rule already states that qualifying facilities must obtain all applicable solid waste handling, stormwater management and air quality permits, and be in compliance with local building, zoning and County or City flow control regulations.

3) *The proposed rule should clarify that solid waste transfer stations and intermodal facilities are not required to police solid waste containers for targeted recyclable materials. The rule should clarify that the obligation for sorting targeted recyclable materials rests with the generator and not with the facilities that receive C&D solid wastes. If a construction container separates C&D materials into a container for targeted recycling materials and another container for C&D solid waste, the facility that then receives the container with solid wastes should not have an obligation to further sort or screen the container even if it contains some recyclables. However, the facility that receives the container with separated targeted recycling materials is obligated to process those materials in accordance with Section 3(G) Residual Standards for Recyclable Materials.*

The Final Rule will clarify that receiving facilities that transfer wastes only to disposal destinations **notify customers** that banned materials are not accepted. However, these disposal-only facilities are not required to separate banned materials that they still receive. Receiving facilities that transfer to recycling destinations must have separate recycling tipping areas for the banned materials or must transload mixed construction and demolition materials to a qualified mixed waste recycling facility.

- 4) *Section 3 C1 for Receiving Facility inspections – “how will the two types of inspections be handled? Seattle will be doing an inspection that may duplicate what the Solid Waste Program is doing.”*
SPU can inform Health Departments of when SPU intends to do an inspection so that they will not overlap unless overlap is desirable.
- 5) *Section 3 C1 for Receiving Facility disposal tipping area inspection reference – “Current plans of operation for permitted receiving facilities will need to be updated to reflect the new protocol. Our inspectors will be looking also to ensure banned materials are not in the residual”.*
Section 3 C1 of the Final Rule has been revised to better articulate that the obligation for sorting targeted material rests with the generators. Receiving facilities that do not transfer to recycling destinations, however, will need to communicate this to their customers. Receiving facilities that transfer to recycling destinations and request to be “qualified” facilities will need to confirm that they have separate recycling tipping areas or transload recyclables to a “qualified” recycler. SPU will work with Health Departments to include relevant documentation in Receiving Facility operations plans.
- 6) *Section 3 C2 for Receiving Facilities – “Inert wastes criteria per WAC 173-350-990 (2) do not include some of the banned materials. As a result they will need to be protected from wind, rain or snow. If they are to be stockpiled outside then they will be required to have runoff controls”.*
We will expect that this will be reflected in Facility operations plans as enforced by the local jurisdictional Health Departments.
- 7) *Section 3 F 1 for Sampling of Residuals – “Public Health recommends including our inspectors to accompany staff for part of the program so that they understand what it is that SPU is striving to monitor and how they will be doing it”.*
We will follow-up with Public Health on this good suggestion.

B. Adequacy of End Markets for Targeted Materials Subject to Landfill Disposal Bans

- 1) *No process provided in the draft Rule if one of the banned materials becomes unmarketable or very difficult to market. SPU should consider stipulating a process for facilities to request consideration for unmarketable material. Allow flexibility in the Rule for variable end markets which could lead to there being no end markets for materials banned from landfill disposal*
The City disposal ban (SMC 21.36.089) already provides flexibility for the SPU Director to modify banned materials if end markets for materials are not available. SPU expects to issue an additional draft Director’s Rule by early November 2013 to possibly delay the implementation of the disposal bans on certain materials due to testimony received through this public comment process. In the future, the SPU Director could also temporarily end the ban on certain materials if end markets are not available.
- 2) *At present time, four of the targeted recyclables (**carpet, plastic film wrap gypsum scrap and asphalt shingles**) are marginally recyclable because of markets that are unproven, limited, sporadic*

and unreliable. We are unaware of whether the City has undertaken an assessment to determine whether, in fact, all of the materials meeting the specifications are “readily recyclable”.

The City of Seattle, King County and the State Department of Ecology have invested significant research dollars and sponsored numerous industry stakeholder roundtable events on all of the materials mentioned over the past six years. Particular ongoing attention is focused on carpet, plastic film wrap and asphalt shingles through King County’s Linkup Program and City consultant contracts for market assessments. Another focus of past research has been clean wood in order to diversify the region’s dependence upon “hog fuel” at pulp and paper mills as the primary end market. Gypsum has probably received the least attention probably due to the presence of such companies as Recovery One, Drywall Recovery Services, CertainTeed and New West Gypsum in the region for the processing of drywall and manufacturing of new wallboard.

- ***Carpet*** – *carpet recycling market in Portland recently closed. WMW has not delivered carpet to markets in the Seattle area due to the difficulty in meeting the strict specifications for clean and dry materials. While shag carpet is recyclable, most commercial carpeting is not recyclable. Even for those types of carpets that are recyclable, the recycling is typically limited to shaving off and recycling only the face fiber.*

Commercial carpet is recyclable. Most vinyl backed carpet tiles are eligible for recycling into new carpet tiles. Carpet manufacturers such as Interface, Tandus, Mannington and Shaw work with carpet installers, distributors and recyclers in the Seattle area for taking back commercial carpet and residential (longer pile) carpet. There still are recycling companies locally who are working on carpet fiber separation methods. One issue that has emerged for recyclers is what to do with the carpet backing materials. However, the major carpet recovery program being put in place in California resulting from product stewardship legislation is expected to have a favorably influence the local infrastructure and end markets.

- ***Plastic film wrap*** - *while clean, dry shrink-wrap film has a viable recycling market other types of mixed film from construction sites do not have stable and proven markets*

It does appear that end markets for construction plastic film wrap which may be dirty are limited at the present time. Technologies such as Agilyx have been slower to become commercialized than expected. SPU will consider delaying the implementation date for the disposal ban on plastic film wrap from construction sites from 2014 to 2015.

- ***Gypsum scrap*** – *WMW is aware of only two recyclers in WA State – CertainTeed in Seattle and Kent and Drywall Recycling Services in Mill Creek. Both have strict specifications that requires inbound drywall to be clean (unpainted and “unspackled”) and dry.*

The disposal ban only applies to new construction gypsum scrap and not demolition gypsum. The specification that the new construction gypsum scrap subject to this disposal ban be “free of spackling material” will be added in the Final Rule.

- **Asphalt Shingles** – significant market limitations both in terms of capacity and seasonality as evidenced by large piles of unground shingles around the Puget Sound area. The market is generally limited to private paving jobs.

WSDOT has a new “General Special Provision” allowing the use of reclaimed asphalt shingles (RAS) in the production of Hot Mix Asphalt for State highways. The King County Road Services Division will release their three-year evaluation of the use of RAS in a King County roadway shortly citing its benefits. The use of RAS is much more widespread in other parts of the country (its use is allowed in 29 other states for the paving of state highways) but these are all positive signals that its use will be expand in Washington State for major roadway paving projects. Public agencies will need to focus on informing engineering staff of the benefits of RAS and the WSDOT new specification its use in public projects will become widespread.

- **Wood** – demand for wood as hog fuel has decreased because boilers are converted to other fuels, such as natural gas and pulp and paper mills have closed such as Kimberly Clark. With large amounts of wood available to buyers they are being more exacting in their specifications and paying a third of what they did in 2010.

The commentary on wood waste markets will be taken into consideration. While pulp and paper mill boilers are the dominant end markets for unpainted and untreated wood, there are a few others such as composting and mulch. It is unfortunate that the New Wood Plant in Elma has not provided another option and that certain pulp mills in Oregon are no longer producing a wood based pulp for paper making.

- 3) *The rule must establish an expedited process for determining whether specific materials are “readily recyclable”. Why is a 13-inch piece of film wrap “readily recyclable” yet an 11-inch piece is not? How did the City decide how large a piece of carpet must be recyclable? Not only is it unclear as to how these standards were set, some of them are vague.*

These standards were developed over a two-year process through sampling by Cascadia Consulting in 2012- 2013 under contract with Seattle and King County at four different participating mixed waste processing facilities. The facilities were Recovery One in Tacoma, CDL Recycle in Seattle, Waste Management Glacier Recycling in Auburn and Republic's Black River facility in Renton. The 2013 study entitled “City of Seattle C&D Processing Residuals Weighing Method Sampling Protocol developed a weight based sampling methodology and is based on the sorting capabilities at those four very different operations. This protocol is referenced in the draft Rule and is available for viewing under www.seattle.gov/util/CDWasteManagement under the “Recycling Requirements” and then the “Certified Facilities webpage.

- 4) *The City should delay implementation of the rule for carpet, plastic film wrap, gypsum scrap and asphalt shingles until it can confirm that there are adequate and viable end markets for the materials.*

The City will continue to review a broad spectrum of industry input on current and future end markets. As described above, the City will likely produce an additional Director's Rule this fall

regarding implementation dates for 2014 banned materials. Current markets for plastic film wrap and carpet are under additional review. The ban on asphalt shingles does not begin until 2015. The gypsum scrap ban is not likely to be delayed since the gypsum scrap specification pertains only to new construction. There are manufacturing end markets in King, Snohomish and Pierce Counties for gypsum scrap from new construction.

- 5) *Section 1 Purpose – “Public Health is having problems with large stockpiles of asphalt roofing shingles (whole and ground) stored outside of existing MRFs (with no runoff controls) due to market downsize. How will you ensure that there will be a market for this material by 2015?”*

Local governments such as King County and recently the City of Tacoma have invested significant resources into end market development projects for recycled asphalt shingles as well as working with State and local paving companies and processors. Seattle Public Utilities will be working with its engineers to have hot mix paving end uses for recycled asphalt shingles specified for City projects and publicized for private paving projects. If the end markets for this material do not appear robust in 2014 then the City can delay the start date of the 2015 disposal ban.

C. Material Specifications

- 1) *Qualifiers such as dry and free of contamination such as paint, grease, grime or dirt” should apply to cardboard, new construction gypsum and unpainted/untreated wood as well as carpet and plastic film.*

Many of these qualifiers will be added in the Final Rule to the material definitions.

- 2) *These specifications are static and do not provide the necessary flexibility for the City to later determine that certain materials or attributes of the materials render them no longer “readily recyclable”.*

The SPU Director may adopt a different implementation schedule for any one of the recyclable materials in the Final Rule if end markets for those materials are not available in the near or long term.

- 3) *The rule designates materials with certain specifications as targeted recycling materials but they may still not meet the specifications of the recycling markets, thereby rendering them unrecyclable. For instance, all clean carpet greater than 12 inches is a targeted material, however, most carpet recyclers will reject wet carpet even if it otherwise meets these specifications. Likewise, carpet recyclers may reject otherwise compliant carpeting because it does not meet its specifications for nylon content. Cardboard and new construction gypsum scrap will likely be unrecyclable if it is wet.*

The size specifications are based on what can typically be expected to be recovered from a sort line. Regarding carpet, they do not pertain to carpet fiber (such as PET or a nylon type) since that would require special fiber type detection equipment on the part of the recycler. One recycler that we are aware of does have this carpet fiber detection equipment.

Cardboard and gypsum scrap can certainly become wet if collection containers lack lids or covers or if lids are not closed. Generally both materials are stored inside at recycling operations. Wet

gypsum is more of a problem for the recycler from a site management and transportation aspect than it is for the gypsum processor or manufacturer.

- 4) *The rule must allow for landfill disposal of materials that meet the technical specifications but do not meet the specification of the recyclers.*

The definitions of the targeted materials are very closely aligned with what is accepted by the recyclers. The wood that is subject to the landfill disposal bans is only that which is unpainted and untreated and does not include particle board or laminated veneer wood. The gypsum wallboard is stipulated to be that from new construction sites. The concrete is also to be unpainted and not to have hazardous constituents. The carpet and plastic film wrap is to be free of other debris. These meet the specifications of recyclers.

- 5) *The City should use a phase-in period to allow for an evaluation of whether the material specifications are excessively stringent.*

The specifications were developed through sampling at four very different operations. They should be broad enough to cover those different facility models. The Final Rule will include a petition process to the City whereby a mixed waste recycling facility can present a case for allowing a different material particle size due to changes in their sorting and processing operations.

- 6) *The targeted materials specifications need further revision and WMW recommends the following revisions:*

- *Concrete/Asphalt Paving/Bricks – add “...do not contain a regulated hazardous waste or constituent...”*

The rule says “...do not contain a hazardous constituent...” and exceptions to what is required to be recycling in Ordinance #124076 refers to “hazardous constituents”.

- *Carpet – “Shag” carpet that is greater than 12 inches in its shortest dimension that is dry and free of contamination such as paint, grease, grime or dirt. This category does not include commercial-type carpet, rugs, carpet pads or underlayments.”*

There is no definition for “shag” carpet and commercial-type carpet such as carpet squares are recyclable. Manufacturers such as Mannington and Interface have “take back” programs for this material. It typically is removed from offices by carpet installers and returned to a retail outlet for shipment back to the manufacture. Such material typically does not come through solid waste transfer stations.

- *Cardboard – add “...that is clean and dry...”*
“Free of contamination such as paint, grease, grime or dirt” will be added in the Final Rule.

- *Plastic Film Wrap – add “...that is clean and dry...”*
“Free of contamination such as paint, grease, grime or dirt” will be added in the Final Rule.

- *New Construction Gypsum Scrap – add “...that is clean and dry...”*

The City is unaware of any restrictions on the recycling of wet gypsum but will check this out with the recyclers who receive this material from mixed waste processing facilities.

- 7) *Most targeted materials will fail to meet the specifications because they will become wet if stored in open containers during wet weather.*

Most the banned materials still meet specifications when wet. We will advise haulers and constructions sites to use lidded or tarped recycling containers where appropriate. Facilities should also store materials under cover when there is no provision for storage in a building or under roof.

D. Size Reduction through Grinding

- 1) *The City cannot dictate how facilities grind solid waste for use as Alternative Daily Cover or Industrial Waste Stabilizer under Section 3(F) (3). This section should be deleted since it dictates how facilities handling solid waste must process solid waste. It also imposes a requirement that all residual must fall under the size standards even though Section G (1) residual standards would allow for 10% of the materials to exceed the size standard. The intent of this provision is to prevent recycling facilities from grinding materials for the purpose of circumventing the size limitations on residuals. If that is the purpose, then this provision should be revised to allow for grinding of materials, but also providing the City with some authority to prevent grinding done solely for the purpose of evading the residual specification.*

The intent of this section is to prevent grinding of materials without any attempt at sorting. This section will be clarified so that it is clear that sorting is expected at the mixed waste recycling facilities otherwise all of the residual materials will be subject to sampling.

E. Hauling of Construction Waste

- 1) *The rule should include a requirement that all construction and demolition projects must use the City’s contracted solid waste hauler for collecting C&D wastes. The City should increase its efforts at enforcing the terms of the C&D contract as well as providing clear direction to construction and demolition project managers that they must use the City’s contracted hauler for collection of C&D waste. WMW recommends that the City include instructions as part of the information provided to these projects when the contractors apply for their building permit.*

C&D hauling regulations and Waste Management contact information for disposal hauling will be provided in conjunction with disposal ban information to building department applicants during the permit application process. Applicants will be instructed that a separate container will need to be provided for recycling at the construction job site. The new Waste Diversion Plan template document which almost all building department applicants will need to submit in 2014 prior to receiving a permit will also be a good way of communicating these requirements.

F. Definitions and Citations

- 1) *Terms in need of definitions or replacement by terms such as “mixed waste processing facilities”, “receiving facilities” and “source separated recycling facilities” that have definitions:*

Processing Facilities

Processors

Qualified Construction and Demolition Receiving and Processing Facilities

Qualified Facilities

Qualified Receiving Facilities and Recycling Facilities

Qualified Recycling Facilities

Receiving and Mixed Waste Processing Facilities

Is the term “processing” different from “recycling”? If so, define “processing”.

We will revise the Final Rule so to use only terms which have definitions.

- 2) *Section 2 Definitions – include the definition of “industrial waste stabilizer”.*

Definitions for “Alternative Daily Cover” and “Industrial Waste Stabilizer” are not included in the Rule since there are no official definitions.

- 3) *Section 3 A 1 for Source Separated Facilities – the reference should be “WAC 173-350-210” and not WAC 173-350-220*

This will be corrected in the Final Rule

- 4) *Section 3(D) (3) is Unconstitutional – reference to the Universal Business Identifier Code as “allowing a business to operate in Washington State”. This requirement could, in effect, prohibit an out-of-state processor from receiving targeted recyclable materials.*

The phrase “allowing a business to operate in Washington State” will be deleted from the Final Rule.

G. Timing of Facility Certification Program

- 1) *The rule should delay implementation of the facility certification program until the City can confirm adequate local receiving and recycling facilities. WMW is not aware that the City has confirmed there will be adequate facilities to receive and/or recycle all of these materials, particularly in light of the restrictive specifications proposed. A facility that receives materials from around the region might refuse to receive certain materials because it is unwilling to change its sorting processes to meet the City’s specifications.*

In 2007 Herrera Environmental Consultants conducted for SPU a comprehensive Construction Waste Processing Facility Analysis. It found that most of the construction waste recycling in the Puget Sound area is conducted by source-separated recyclers particularly for concrete, asphalt paving, metal, wood waste, gypsum and cardboard. In 2012 Herrera, again under contract with SPU, contacted the major mixed waste recycling facilities and several source separated processors to update the 2007 capacity analysis. The 2012 Technical Memorandum indicated that sufficient recycling capacity was place through private recycling operations and that there was significant interest in expanding that capacity to include the new targeted materials such as plastic film wrap, carpet and asphalt shingles.

The specifications developed for the certification were conducted through sampling the “end of sort line” residual at the permitted mixed waste recycling facilities serving many Seattle construction companies. The City is aware that WM Glacier Recycle in Auburn has recently closed its operation. That leaves three other mixed waste processing operations and possibly others in neighboring Counties (which did not participate in the 2012 and 2013 residual sampling by choice) that will be interested in being certified. The City will not be delaying the implementation of the facility certification program in 2014 which contain basic requirements for facility permitting and reporting. To do so would impact the implementation of other requirements for generators such as the submittal of Waste Diversion Plans and Reports. SPU, however, will most likely delay the start date for the implementation of the disposal bans for certain materials based on Administrative Rulemaking by November 2013 if not earlier in late October.

H. Rule Format and References

- 1) *Section 3 F and G – “Suggest swapping F and G sections. It seems awkward that F (2) is referencing a section after it rather than before a reader would have come across it.”*

The section order reflects that sampling (as a criteria for certification for the mixed waste recycling facilities) is presented first and then the target material specifications.

- 2) *Section 3 F4 – “Provide a web link in text to provide the most current information”.*

We can do that though it may change in the future.

- 3) *Section G Title – “Add to the title of this section ...at Source Separated Recycling Facilities”.*

The section pertains to the Mixed Waste Processing Facilities since sampling will not be taking place at the Source Separated Facilities which do not accept mixed commodities or unsorted demolition debris loads.

- 4) *Section 3 G1 - “Add to the first sentence pertaining to the not more than 10 % ...weight per load of ... and also “...or not to exceed 5% of the total weight received by weight per year (WAC 173-350-310(2) (b) (ii)”.*

This section pertains to the pile of residual material for sampling at a mixed waste processing facility not to hauling to a source separated recycling facilities.

- 5) *Section G 2b – “aluminum cans are not a ferrous metal”.*

There should be a comma after ferrous metal in that sentence. The change will be made in the Final Rule.

- 6) *Section H – “Provide a web link for updated list of qualified facilities”.*

That will be provided on the SPU Construction Waste Recycling Requirements web page.

- 7) *Waste Diversion Form examples for hauling and facilities from New Jersey provided.*

Thanks for the web links to these documents. Washington State does not have anything similar for hauling but does have an Annual Recycling Report which is required all collectors and recycling facilities must fill out broken down by County. The City of Seattle also has its own Annual Recycling Report for collectors and recycling facilities located in Seattle to fill out – it includes construction materials as well as “traditional” recyclables and organic waste materials. The significance of SW 405.1 is all any recycling facility regardless of location which receives Seattle generated material would need to submit an Annual Recycling Report to the City of Seattle. That is the only way that we can accurately track our City-wide recycling goals.